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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
EBRAHIMI DEHKORDY, SAEID	
ART UNIT	**PAPER NUMBER**
2626	

DATE MAILED: 03/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/447,718	KOHTANI ET AL.	
	Examiner	Art Unit	
	Saeid Ebrahimi-dehKordy	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *37-78* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37-78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

1. Applicant's arguments with respect to claims 37-78 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 37-39,46-47,52-53,58-60,64-68,71-74 and 77-78 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamazaki et al (U.S. patent 6,400,466)

Regarding claims 37,46 and 52 Yamazaki et al disclose: An image processing apparatus connectable to an external device that can transmit printing data and to an original-reading device which generates reproduction image data by reading an original image (please note Fig.1 items 50 the external device the reader or scanner 2 and the image forming device printer1, column 3 lines 38-60) said image processing apparatus employing an image forming device which forms an image on a sheet (please note column 3 lines 38-40) said image processing apparatus comprising: an engine controller for controlling the image forming device based on image data (please note column 3

lines 61-67 and column 4 lines 1-2) a printer controller for forming print image data from the printing data transferred from the external apparatus and transmitting the print image data to said engine controller (please note column 4 lines 3-21) a reader controller for receiving the reproduction image data generated by an original-reading device and for transmitting the reproduction image data to said engine controller (please note Fig.1 column 4 lines 47-67 and column 5 lines 1-8) and transmitting means for selectively transmitting a state signal indicating a condition of the image forming device to at least one of said printer controller and said reader controller in accordance with a content of the state signal (please note column 5 lines 41-46).

Regarding claim 38 Yamazaki et al disclose: The apparatus according to claim 37, wherein said transmitting means selectively transmits the state signal to said printer controller or said reader controller also in accordance with which of the reproduction Image data and the print image data are being transmitted to said engine controller (please note column 5 lines 34-40).

Regarding claim 39 Yamazaki et al disclose: The apparatus according to claim 37, wherein the condition indicated by the state signal is a change in a state of the image-forming device (please note column 5 lines 60-67 and column 6 lines 1-4)

Regarding claim 47 Yamazaki disclose: The apparatus according to claim 46, wherein said holding mean holds the command while said reader controller is transmitting the reproduction image data uses a change in a load of the image forming device (please note column 6 lines 58-67 and column 7 lines 1-4).

Regarding claim 53 Yamazaki et al disclose: The apparatus according to claim 52, wherein when there is a request to transmit the reproduction image data from the original-reading device to said engine controller while the print image data from said printer controller is being transmitted to said engine controller said transmitting means interrupts transmission of the data request signal to said printer controller and transmits the data request signal to said reader controller (please note column 4 lines 21-46).

Regarding claims 58,67 and 73 Yamazaki et al disclose: An image processing apparatus usable with an external device that can transmit printing data, said image processing apparatus comprising:

an original-reading device which reads an original image and outputs reproduction image data based on the read original image a printer an engine controller connected to said printer controlling said printer based on received image data (please note column 3 lines 37-60) and outputting a first state signal indicating a condition of said printer (please note column 5 lines 28-46)

a reader controller connected to said original reading device and said engine controller said reader controller receiving the reproduction image data output by said original-reading device transmitting the reproduction image data to said engine controller and receiving the first state signal output by said engine controller (please note column 4 lines 47-67 and column 5 lines 1-8)

and a printer controller connected to said reader controller and connectable to the external device said printer controller receiving the printing data transmitted from the external apparatus forming print image data from the printing data (please note Fig.1

column 3 lines 37-67 and column 4 lines 1-20) and transmitting the print image data to said engine controller via said reader controller said reader controller selectively transmitting depending upon a content of the received state signal a second state signal indicating the condition of said image forming device to said printer controller (please note column 5 lines 28-59)

Regarding claims 64,71 and 77 Yamazaki et al disclose: A control method for an image forming apparatus connected to an external apparatus the image forming apparatus employing a printer an original-reading device which reads an original image and outputs reproduction image data based on the original image a printer controller which receives printing data transferred from the external apparatus and outputs print image data based on the printing data and an engine controller which controls the printer based on the reproduction image data and the print image data and which outputs a first: state signal indicating a condition of the printer (please note Fig.1 column 3 lines 37-60) said method comprising:

the steps of: receiving the reproduction image data from the original-reading device (please note Fig.1 column 4 lines 37-67) receiving the print image data from the printer controller receiving the first state signal from the engine controller selecting one of the received reproduction image data received and the received print image data relaying the selected image data to the engine controller (please note column 4 lines 21-64) and selectively transmitting a second state signal indicating the condition of the image forming device to the printer controller in accordance with a content of the received first state signal (please note column 5 lines 33-46).

Regarding claim 59 Yamazaki et al disclose: The apparatus according to claim 58, wherein whether said reader controller transmits the second state signal to said printer controller also depends upon which of the reproduction image data and the print image data is being transmitted to said engine controller (please note column 5 lines 38-46).

Regarding claim 60 Yamazaki et al disclose: The apparatus according to claim 58, wherein the condition indicated by the state signals is a change in a state of the image forming device (please note column 5 lines 41-46).

Regarding claim 65 Yamazaki et al disclose: The method according to claim 64, wherein in said selectively transmitting step the second state signal is selectively transmitted to the printer controller also in accordance with a source of the selected image data (please note column 5 lines 40-46).

Regarding claim 66 Yamazaki et al disclose: The method, according to claim 64, wherein the condition indicated by the state signals is a change in a state of the printer (please note column 5 lines 53-65).

Regarding claim 68 Yamazaki et al disclose: The apparatus according to claim 67, wherein the command is held in said buffer while said reader controller is relaying the reproduction image data only if the command causes a change in a load of said printer (please note column 6 lines 54-64).

Regarding claim 72 Yamazaki et al disclose: The method according to claim 50, wherein the command is held in said holding step only if the command causes a change in a load of the printer (please note column 6 lines 52-64).

Regarding claim 74 Yamazaki et al disclose: The apparatus according to claim 73, wherein when there is a request to transmit the reproduction image data from said original-reading device to said engine controller while the print image data from said printer controller is being transmitted to said engine controller said reader controller interrupts transmission of the data transmission synchronization signal to said printer controller and utilizes the data transmission synchronization signal to control said original reading device (please note column 4 lines 21-64).

Regarding claim 78 Yamazaki et al disclose: The method according to claim 77, wherein when there is a request to transmit the reproduction image data from the original-reading device to the engine controller while the print image data from the printer controller is being transmitted to the engine controller, said selectively transmitting step is interrupted and said selectively controlling step is performed (please note Fig.2b column 9 lines 62-68 and column 10 lines 1-19 where the reader device sends the image data to the engine controller and also the external device sends the data to the engine controller through the printer controller 201).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 40-45,48-51,54-57,61-63,69-70 and 75-76) are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamazaki et al (U.S. patent 6,400,466) in view of Ebner (U.S. patent 5,452,094)

Regarding claims 40,43,54 and 56 Yamazaki et al disclose: A controller for an image forming apparatus connectable to an external apparatus and to an original-reading device which outputs reproduction image data formed by reading an original image (please note Fig.1 items 50 the external device the reader or scanner 2 and the image forming device printer1, column 3 lines 38-60) the image forming apparatus employing an image forming device for forming an image on a sheet (please note column 3 lines 38-40) a printer controller which outputs print image data formed from printing data transferred from the external apparatus (please note Fig.1 column 4 lines 4-45) and an engine controller which controls the image forming device based on the reproduction image data output by the original-reading device and the print image data output by the printer controller and which outputs a state signal indicating a condition of the image forming device (please note column 4 lines 25-36) said controller comprising:
first reception means for receiving the reproduction image data output by the original-reading device (please note column 4 lines 3-20)
second reception means for receiving the print image data output by the printer controller (please note Fig.1 column 3 lines 55-60)
and transmitting means for selectively transmitting a state signal indicating a condition of the image forming device to at least one of a processor which controls the original-reading device, and the - printer controller in accordance with a content of the state

signal (please note Yamazaki et al, column 4 lines 25-63) However Yamazaki et al does not teach: selection means for selecting one of the reproduction image data received by said first reception means and the print image data received by said second reception means and for transmitting the selected image data to the engine controller which controls the image forming device based on the selected image data, On the other hand Ebner et al disclose: selection means for selecting one of the reproduction image data received by

said first reception means and the print image data received by said second reception means and for transmitting the selected image data to the engine controller which controls the image forming device based on the selected image data (please note Ebner et al, column 7 lines 41-61 and column 9 lines 42-67 and column 10 lines 1-2).

Therefore it would have been obvious to a person of ordinary skill in art at the time of the invention to modify Yamazaki et al's invention according to the teaching of Ebner et al, Where Ebner et al in the same field of endeavor teaches the way the image is selected and sent to the print engine with the printed data combined in order to manipulate the replace or edit images.

Regarding claim 41 Yamazaki et al disclose: The controller according to claim 40, wherein said transmitting means selectively transmits the state signal to the processor or the printer controller also in accordance with a source of the selected image data that is transmitted by said selection means to the engine controller (please note column 4 lines 25-46).

Regarding claim 42 Yamazaki et al disclose: The controller according to claim 40, wherein the condition indicated by the state signal is a change in a state of the image forming device (please note column 6 lines 31-33).

Regarding claim 44 Yamazaki et al disclose: The method according to claim 43, wherein the state signal is selectively transmitted to the processor or the printer controller in accordance also with which of the reproduction image data and the print image data is transmitted in said selecting step to the engine controller (please note column 6 lines 37-63).

Regarding claim 45 Yamazaki et al disclose: The method according to claim 43, wherein the condition indicated by the state signal is a change in a state of the image-forming device (please note column 4 lines 25-46).

Regarding claims 48 and 50 Yamazaki et al disclose: A controller for an image forming apparatus connectable to an external apparatus and to an original-reading device which outputs reproduction image data formed by reading an original image (please note column 3 lines 38-60) the image forming apparatus employing an image forming device for forming an image on a sheet (please note column 3 lines 38-40) a printer controller which outputs i) print image data formed form printing data transferred from the external apparatus (please note column 3 lines 38-48) and (ii) a command for setting an operation of the image forming device (please note column 4 lines 58-62) and an engine controller which controls the image forming device based on the reproduction image data output by the original-reading device and the command and the print image

data output by the Printer controller (please note column 4 lines 25-34) said controller comprising:

first reception means for receiving the reproduction image data output by the original- reading device (please note column 4 lines 3-20)

second reception means for receiving the command and the print image data output by the printer controller (please note Fig.1 column 3 lines 55-60)

holding means for holding the command if the command is received by said second reception means while the reproduction image data received by first reception means is being transmitted to engine controller and for transmitting the held command to the engine controller after completion of the transmitting of the reproduction image data to the engine (please note column 4 lines 21-46) However Yamazaki et al does note disclose: said first reception means and the print image data received by said second reception means and for transmitting the selected image data to the engine controller which controls the image forming device based on the selected image data, On the other hand Ebner et al disclose: said first reception means and the print image data received by said second reception means and for transmitting the selected image data to the engine controller which controls the image forming device based on the selected image data (please note Ebner et al, column 7 lines 41-61 and column 9 lines 42-67 and column 10 lines 1-2).

Therefore it would have been obvious to a person of ordinary skill in art at the time of the invention to modify Yamazaki et al's invention according to the teaching of Ebner et al, Where Ebner et al in the same field of endeavor teaches the way the image is

selected and sent to the print engine with the printed data combined in order to manipulate the replace or edit images.

Regarding claims 49 and 51 Yamazaki et al disclose: The apparatus according to claim 47, wherein said holding means holds the command while the reproduction image data is being transmitted if the command causes a change in a load of the image forming device (please note column 4 lines 26-36).

Regarding claim 55 Yamazaki et al disclose: The apparatus according to claim 54, wherein when there is a request to transmit the reproduction image data from the original-reading device to the engine controller while the print image data from the printer controller is being transmitted to the engine controller said transmitting means interrupts transmission of the data request signal to the printer controller and transmits the data request signal to the original-reading device (please note column 4 lines 46-67 and column 5 lines 1-8).

Regarding claim 57 Yamazaki et al disclose: The method according to claim 56, wherein when there is a request to transmit the reproduction image data from the original-reading device to the engine controller while the print image data from the printer controller is being transmitted to the engine controller said transmitting step comprises interrupting transmission of the data request signal to the printer Controller. And transmitting the data request signal to the original-reading device (please note column 4 lines 21-67 and column 5 lines 1-8).

Regarding claims 61,69 and 75 Yamazaki et al disclose: A controller for an image forming apparatus connectable to an external apparatus the image forming apparatus employing a printer an original-reading device which reads an original image and outputs reproduction image data based on the original image a printer controller which receives printing data transferred from the external apparatus and outputs print image data based on the printing data (please note column 3 lines 37-67 and column 4 lines 1-20) and an engine controller which controls the printer based on the reproduction image data and the print image data and which outputs a first state signal indicating a condition of the printer (please note column 4 lines 3-36) said controller comprising:

a first input port connected to the original- reading device for receiving the reproduction image data (please note Fig.1 item 34 where the image from the scanner is transmitted to the controller, column 4 lines 40-45)

a second input port connected to the printer controller for receiving the print image data (please note Fig.1 item 42 column 4 lines 4-6).

a third input port connected to the engine controller for receiving the first state signal (please note Fig.1 item 13 column 3 lines 50-54), transmitting means connected to the printer controller for selectively transmitting to the printer controller a second state signal indicating the condition of the printer and a processor connected to the transmitting means and the selector for controlling the selective transmission of the second state signal by said transmitting means in accordance with a content of the state signal output by the engine controller and for controlling the selection of the selected image data by said selector (please note column 4 lines 4-64).

However Yamazaki et al does note disclose: a selector connected to the engine controller for selecting one of the reproduction image data received via said first input port and the print image data received via said second input port and for relaying the selected image data to the engine controller

On the other hand Ebner et al disclose: a selector connected to the engine controller for selecting one of the reproduction image data received via said first input port and the print image data received via said second input port and for relaying the selected image data to the engine controller (please note Ebner et al, column 7 lines 41-61 and column 9 lines 42-67 and column 10 lines 1-2).

Therefore it would have been obvious to a person of ordinary skill in art at the time of the invention to modify Yamazaki et al's invention according to the teaching of Ebner et al, Where Ebner et al in the same field of endeavor teaches the way the image is selected and sent to the print engine with the printed data combined in order to manipulate the replace or edit images.

Regarding claim 62 Ebner et al disclose: The controller according to claim 61, wherein said processor controls the selective transmission by said transmitting means also in accordance with a source of the selected image data (please note column 7 lines 41-61).

Regarding claim 63 Yamazaki et al disclose: The controller according to claim 61, wherein the condition indicated by the state signals is a change in a state of the printer (please note column 5 lines 33-46).

Regarding claim 70 Yamazaki et al disclose: The apparatus according to claim 69, wherein said processor stores the command in the buffer while said selector is relaying the reproduction image data only if the command causes a change in a load of the printer (please note column 6 lines 47-51).

Regarding claim 76 Yamazaki et al disclose: The apparatus according to claim 75, wherein when there is a request to transmit the reproduction image data from the original-reading device to the engine controller while the print image data from the printer controller is being transmitted to the engine controller said processor controls the gate to interrupt the transmission of the data transmission synchronization signal to the printer controller and utilizes the data transmission synchronization signal to control the original-reading device (please note column 4 lines 47-67 and column 5 lines 18).

Other prior art cited

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Beaudet et al (U.S. patent 6,469,795) is pertinent as disclosing a copier/printer with improved productivity.

Negishi (U.S. patent 6,462,830) is pertinent as disclosing an image processing apparatus and method, image forming system, image forming apparatus and method.

Rumph et al (U.S. patent 6,327,043) is pertinent as disclosing an object optimized printing system and method.

Contact Information

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to *Saeid Ebrahimi-Dehkordy* whose telephone number is (703) 306-3487.

The examiner can normally be reached on Monday through Friday from 8:00 a.m. to 5:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams, can be reached at (703) 305-4863.

Any response to this action should be mailed to:

Assistant Commissioner for Patents
Washington, D.C. 20231

Or faxed to:

(703) 872-9306, or (703) 308-9052 (for ***formal*** communications; please mark
"EXPEDITED PROCEDURE")

Or:

(703) 306-5406 (for ***informal*** or ***draft*** communications, please label "PROPOSED" or "DRAFT")

Hand delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 305-4750.

Saeid Ebrahimi-Dehkordy
Patent Examiner
Group Art Unit 2626
March 9 2004

KA Williams

KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER